

## CLAIMS

### WHAT IS CLAIMED IS:

1. A goggle for applications requiring protection of the eyes of a wearer, the goggles comprising:
  - a housing with an arcuate upper surface with a first end and a second end;
  - a substantially planar frontal surface;
  - a centrally disposed nose bridge;
  - a first and second lower panel disposed opposite the nose bridge, an edge of the first and second lower panel connecting with the arcuate upper surface first and second end;
  - goggle support means for securing the goggle to the head of the wearer; and
  - vent means disposed adjacent the nose bridge and within the goggle support means.
2. The goggle according to claim 1, wherein the arcuate upper surface, substantially planar frontal surface and at least an anterior portion of the first and second lower panels are comprised of a transparent material.
3. The goggle according to claim 1, wherein a posterior edge of the arcuate upper surface is contoured to conform to the topography of the wearer's face.
4. The goggle according to claim 1, wherein the vent means comprises a plurality of openings permitting the transfer of air into and out of the housing.
5. The goggle according to claim 1, wherein the arcuate upper surface is defined by an arc with an axis of rotation extending perpendicular to the tip of the nose of a wearer with a radius of between about 2.5 to 4 inches and a range of rotation extending between about 120 degrees and 180 degrees from the arcuate upper surface first end to the arcuate upper surface second end.
6. The goggle according to claim 5, wherein the range of rotation extends between about 130 degrees and 150 degrees.

7. The goggle according to claim 1, wherein the support means comprise a rearward extension of the arcuate upper surface and the lower panel proximate the first end and the second end of the arcuate upper surface, the rearward extension operably securing the goggle to the head of the wearer.

8. The goggle according to claim 7, wherein the support means extend rearwardly between about 3 and 5 inches from the planar frontal surface.

9. The goggle according to claim 1, wherein the arcuate upper surface and lower panels reduce refraction of light as perceived by the eyes of the wearer.

10. The goggle according to claim 1, wherein the planar frontal surface extends outwardly from the face of the wearer sufficient to accommodate a pair of glasses.

11. The goggle according to claim 10, wherein the substantially planar frontal surface extends outwardly from the eye of the wearer about 3 centimeters.

12. The goggle according to claim 1, wherein the arcuate upper surface and the first and second lower panels increase the field of vision of the wearer.

13. A goggle for applications requiring protection of the eyes of a wearer, the goggle comprising:

a housing comprising;

a substantially planar frontal surface;

an arcuate upper surface with a first end and a second end, the arcuate upper surface further comprising a posterior edge and an anterior edge, the posterior edge contoured to conform to the topography of the face of the wearer, the anterior edge of the arcuate upper surface intersecting with the substantially planar frontal surface;

a nose bridge centrally disposed between the first and second end of the planar frontal surface;

a first and second lower panel, the first lower panel disposed opposite the nose bridge from the second lower panel, the first and second lower panels

further comprising an anterior portion, a lateral portion and an edge contoured to conform to the topography of the wearer's face; support arms extending rearwardly from the arcuate upper surface first and second ends toward the ears of the wearer; and vents disposed adjacent the nose bridge and within the support arms.

14. The goggle according to claim 13, wherein an interior space is defined by the arcuate upper surface, the substantially planar frontal surface, the nose bridge, the first and second lower panel and the support arms.

15. The goggle according to claim 13, wherein the first and second end of the substantially planar frontal surface join the anterior portions of the first and second lower panels.

16. The goggle according to claim 13, wherein the first and second ends of the arcuate upper surface join the lateral portions of the first and second lower panels.

17. The goggle according to claim 13, wherein the arcuate upper surface, the substantially planar frontal surface and at least a portion of the first and second lower panels is comprised of a transparent material.

18. The goggle according to claim 13, wherein the housing minimizes total internal refraction of light thereby improving the visual clarity for the wearer.

19. The goggle according to claim 13, wherein the housing is comprised of plastic or glass.

20. The goggle according to claim 13, wherein the arcuate upper surface is defined by an arc with an axis of rotation extending perpendicular to the tip of the nose of a wearer with a radius of between about 2.5 to 4 inches and a range of rotation extending between about 120 degrees and 180 degrees from the arcuate upper surface first end to the arcuate upper surface second end.

21. The goggle according to claim 13, wherein the arcuate upper surface and the first and second lower panels increase the field of vision of the wearer.

22. A method for making a goggle for protecting the eyes, the method comprising the steps of:
- providing a housing with an arcuate upper surface with a first end and a second end, a planar frontal surface, a centrally disposed nose bridge, a first and second lower panel disposed opposite the nose bridge, an edge of the first and second lower panel connecting with the arcuate upper surface first and second end, the housing contoured to conform to the topography of the wearer's face;
  - providing means for supporting the goggle on the head of the wearer; and
  - providing vent means disposed adjacent the nose bridge and within the support means.
23. The method according to claim 22, wherein the housing minimizes total internal reflection of light thereby improving the visual clarity of the wearer.
24. The method according to claim 22, wherein the arcuate upper surface, substantially planar frontal surface and at least an anterior portion of the first and second lower panels are comprised of a transparent material.
25. The method according to claim 22, wherein a posterior edge of the arcuate upper surface is contoured to conform to the topography of the wearer's face.
26. The method according to claim 25 wherein the posterior edge of the arcuate upper surface and lower panels evenly distribute a contact force to the face of the wearer thereby improving wearing comfort.
27. The method according to claim 22, wherein the vent means comprises a plurality of openings permitting the transfer of air into and out of the housing.
28. The method according to claim 22, wherein the arcuate upper surface is defined by an arc with an axis of rotation extending perpendicular to the tip of the nose of a wearer with a radius of between about 2.5 to 4 inches and a range of rotation extending between about 120 degrees and 180 degrees from the arcuate upper surface first end to the arcuate upper surface second end.

29. The method according to claim 28, wherein the range of rotation extends between about 130 degrees and 150 degrees.

30. The method according to claim 22, wherein the support means comprise a rearward extension of the arcuate upper surface and the lower panel proximate the first end and the second end of the arcuate upper surface, the rearward extension operably securing the goggle to the head of the wearer.

31. The method according to claim 30, wherein the support means extend rearwardly between about 3 and 5 inches from the planar frontal surface.

32. The method according to claim 22, wherein the arcuate upper surface and lower panel reduce refraction of light as perceived by the eyes of the wearer.

33. The method according to claim 22, wherein the planar frontal surface extends outwardly from the face of the wearer sufficient to accommodate a pair of glasses.

34. The method according to claim 22, wherein the substantially planar frontal surface extends outwardly from the eye of the wearer about 3 centimeters.